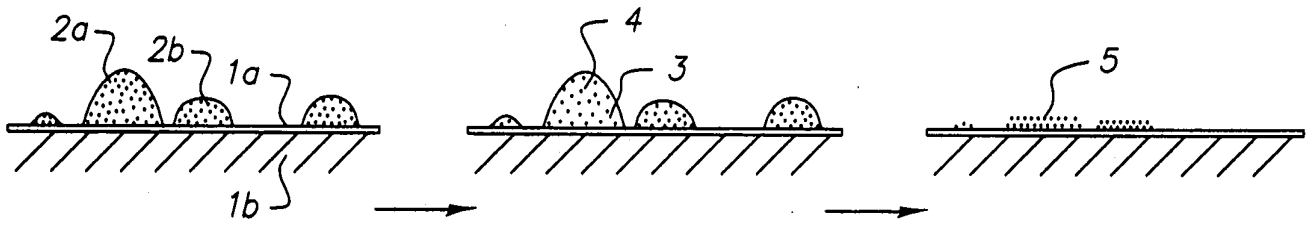

INK DROPLETS DEPOSITED

FIG. 1a

COAGULATES FORMED

FIG. 1b

EXCESS LIQUID REMOVED

FIG. 1c

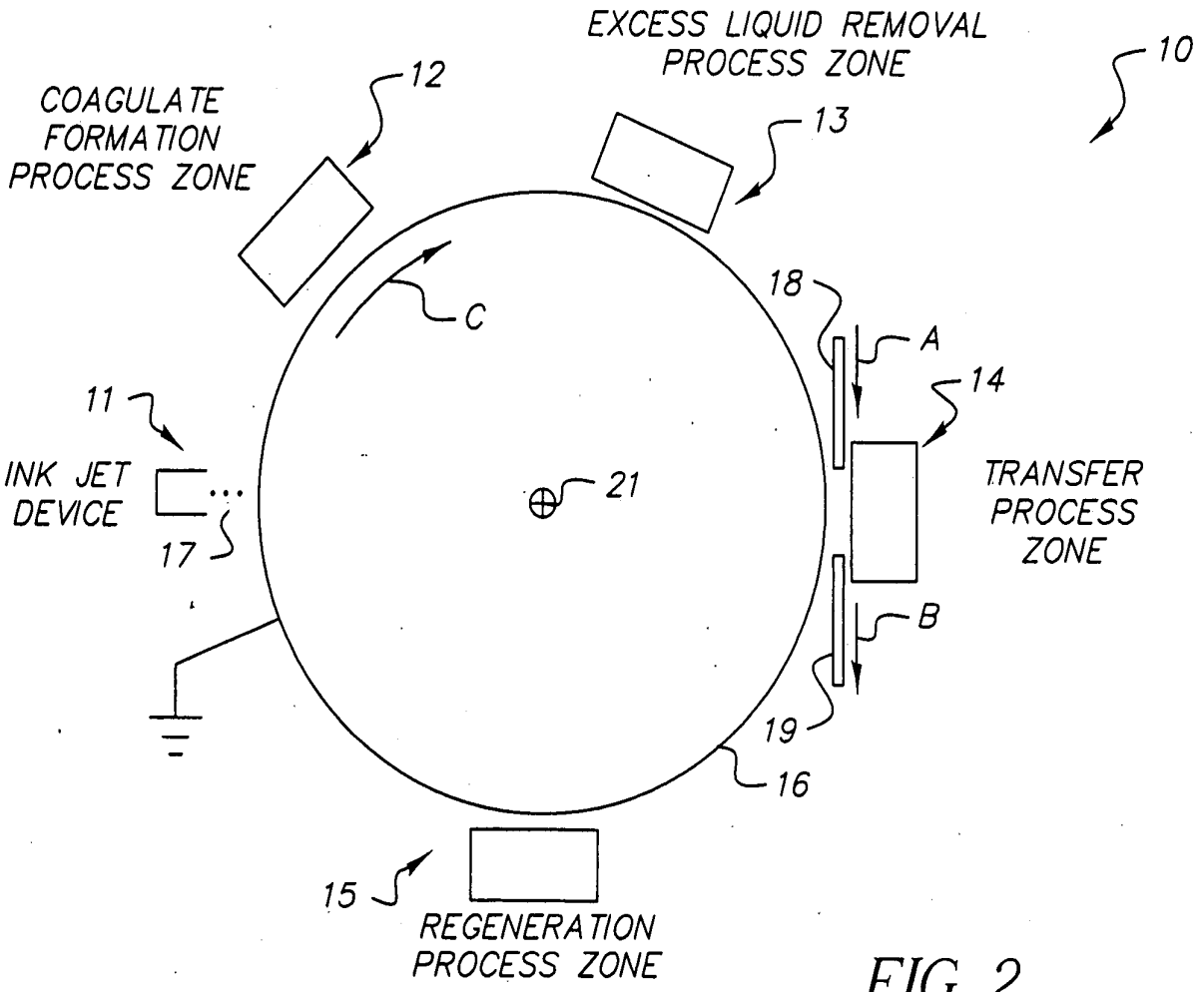
EXCESS LIQUID REMOVAL PROCESS ZONE
10
12
COAGULATE FORMATION PROCESS ZONE
13
C
18
A
14
11
INK JET DEVICE
17
21
TRANSFER PROCESS ZONE
B
19
16
15
REGENERATION PROCESS ZONE

FIG. 2

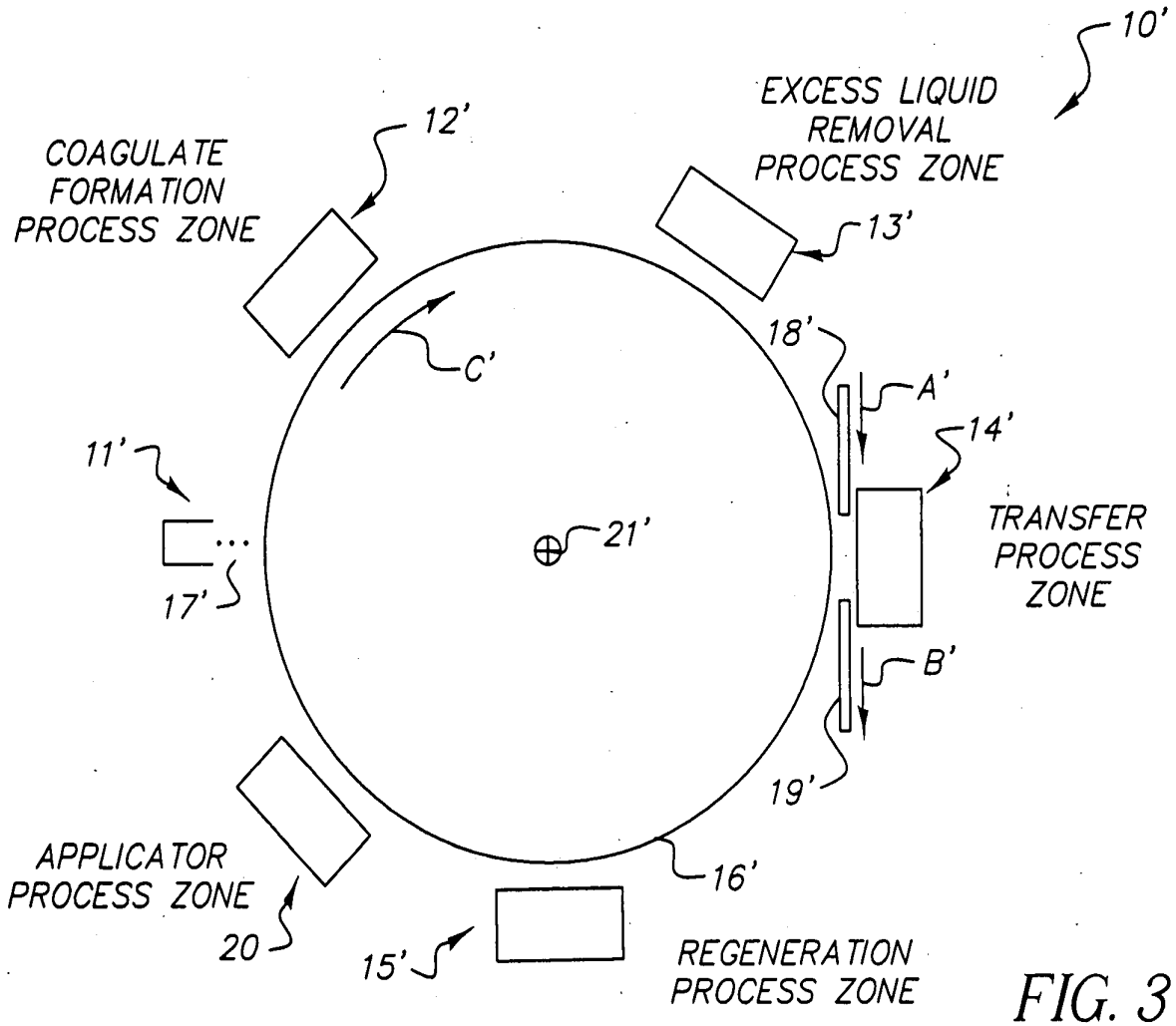
10'
EXCESS LIQUID REMOVAL PROCESS ZONE
12'
COAGULATE FORMATION PROCESS ZONE
13'
C'
18'
A'
14'
11'
21'
TRANSFER PROCESS ZONE
17'
B'
19'
16'
APPLICATOR PROCESS ZONE
20
15'
REGENERATION PROCESS ZONE

FIG. 3

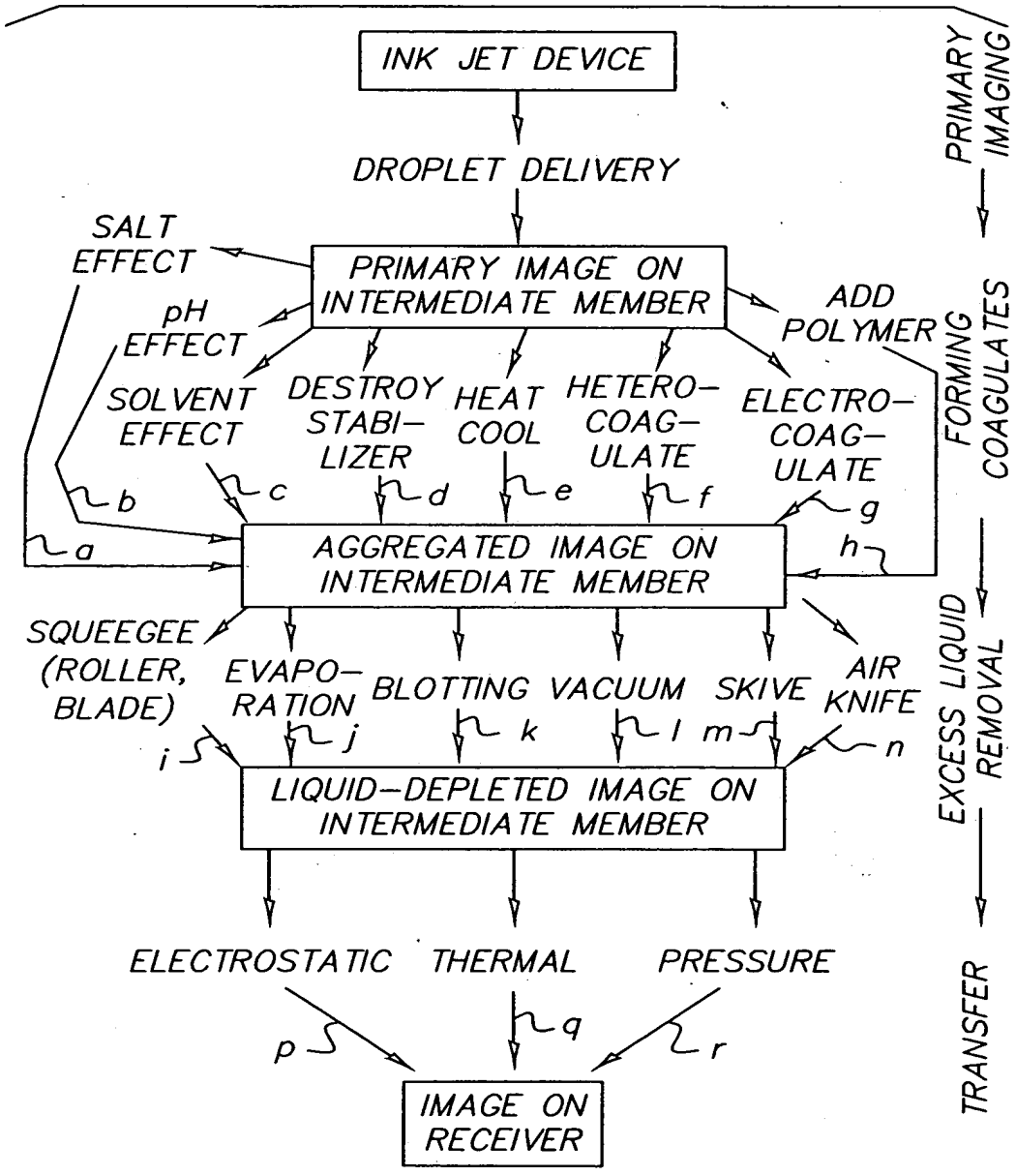
INK JET DEVICE
DROPLET DELIVERY
PRIMARY IMAGING
SALT EFFECT
PRIMARY IMAGE ON INTERMEDIATE MEMBER
pH EFFECT
ADD POLYMER
SOLVENT EFFECT
DESTROY STABI-LIZER
HEAT COOL
HETERO-COAG-ULATE
ELECTRO-COAG-ULATE
FORMING COAGULATES
a
b
c
d
e
f
g
h
AGGREGATED IMAGE ON INTERMEDIATE MEMBER
SQUEEGEE (ROLLER, BLADE)
EVAPO-RATION
BLOTTING
VACUUM
SKIVE
AIR KNIFE
EXCESS LIQUID REMOVAL
i
j
k
l
m
n
LIQUID-DEPLETED IMAGE ON INTERMEDIATE MEMBER
ELECTROSTATIC
THERMAL
PRESSURE
TRANSFER
p
q
r
IMAGE ON RECEIVER

FIG. 4

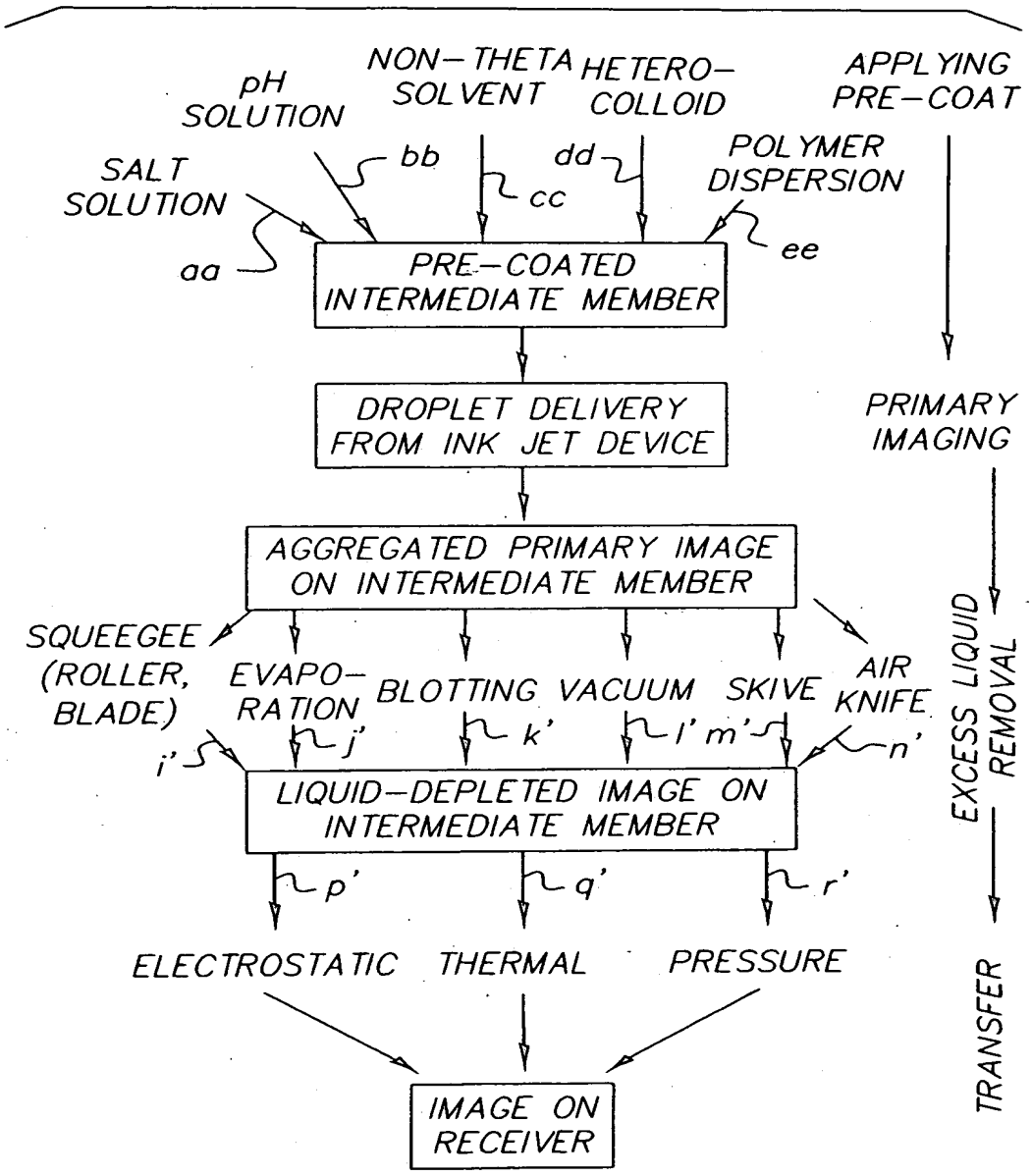
pH SOLUTION
NON–THETA SOLVENT
HETERO–COLLOID
APPLYING PRE–COAT
SALT SOLUTION
bb
cc
dd
POLYMER DISPERSION
aa
ee
PRE–COATED INTERMEDIATE MEMBER
DROPLET DELIVERY FROM INK JET DEVICE
PRIMARY IMAGING
AGGREGATED PRIMARY IMAGE ON INTERMEDIATE MEMBER
SQUEEGEE (ROLLER, BLADE)
EVAPO–RATION
BLOTTING
VACUUM
SKIVE
AIR KNIFE
i'
j'
k'
l'
m'
n'
LIQUID–DEPLETED IMAGE ON INTERMEDIATE MEMBER
EXCESS LIQUID REMOVAL
p'
q'
r'
ELECTROSTATIC
THERMAL
PRESSURE
TRANSFER
IMAGE ON RECEIVER

FIG. 5

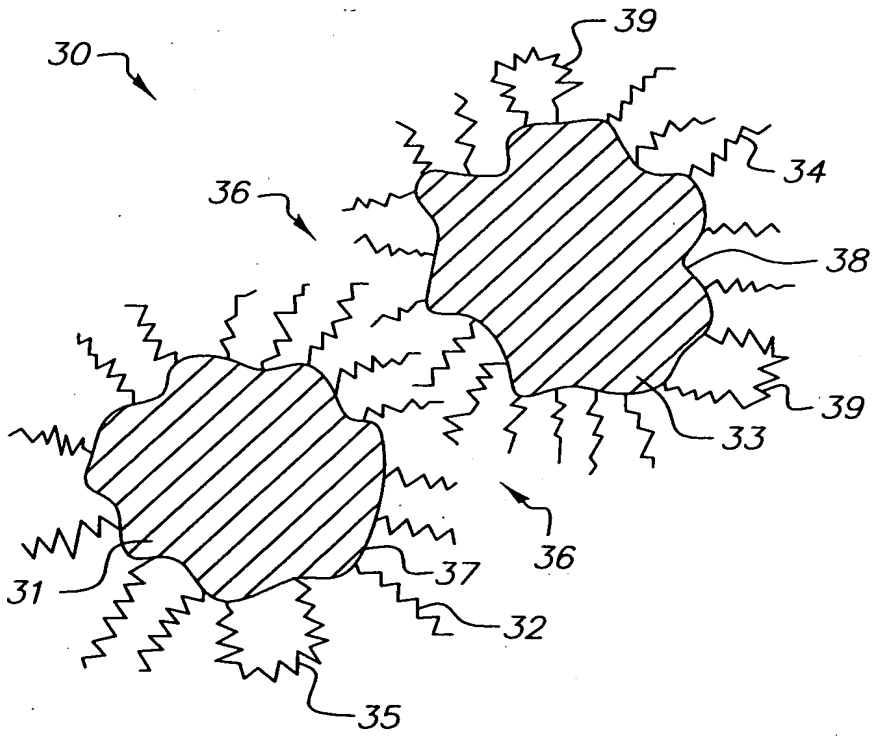

FIG. 6

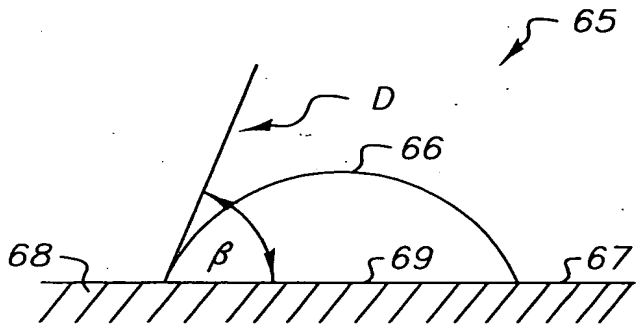

FIG. 7

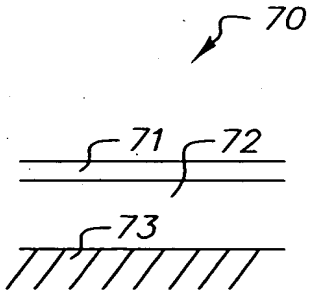

FIG. 8

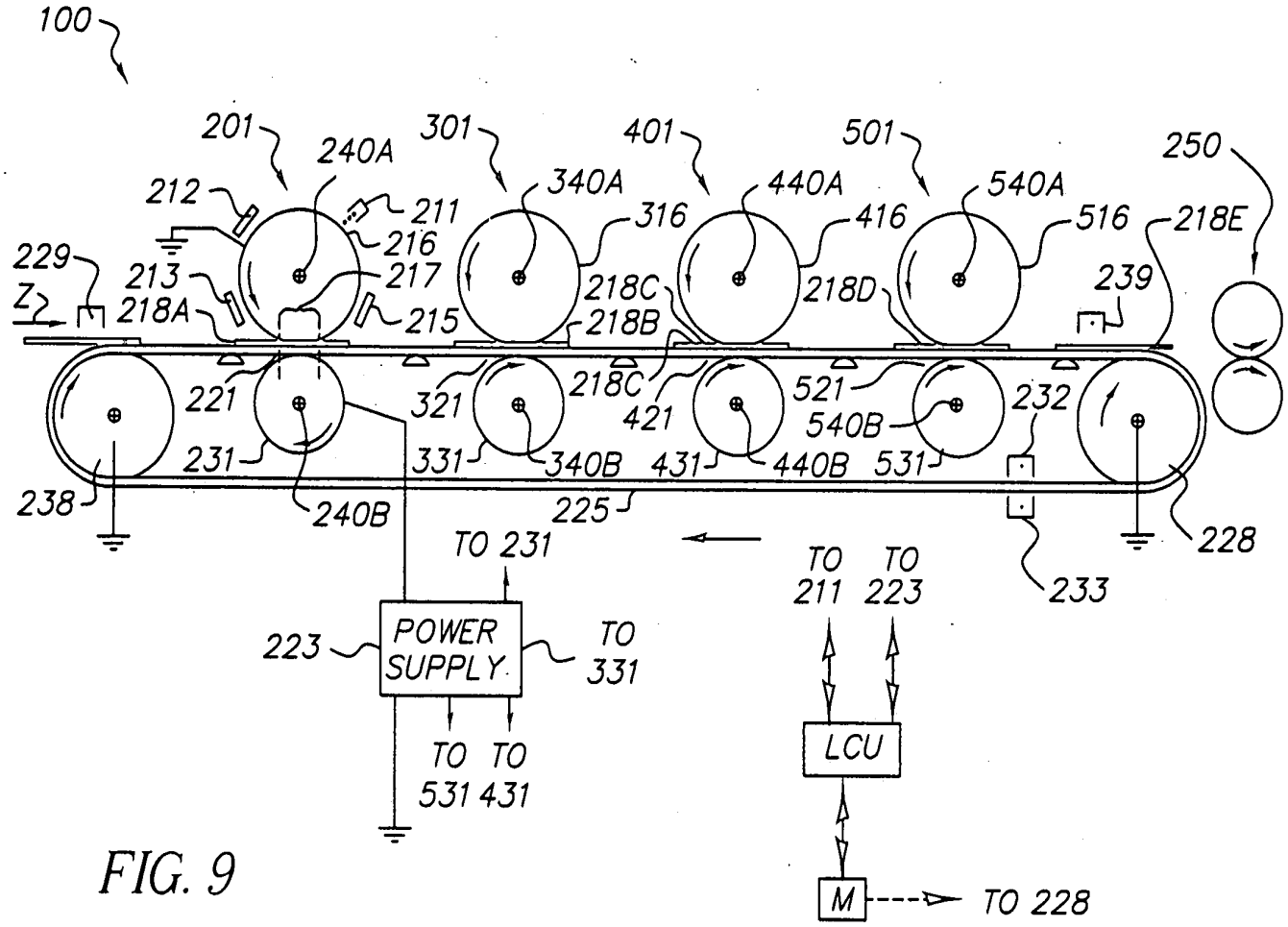
100
201
240A
212
211
216
229
213
217
218A
215
301
340A
316
218C
218B
401
440A
416
218D
501
540A
516
239
250
218E
221
321
218C
421
521
540B
232
231
331
340B
431
440B
531
238
240B
225
228
233
TO 231
223
POWER SUPPLY
TO 331
TO 531
TO 431
TO 211
TO 223
LCU
M
TO 228

FIG. 9

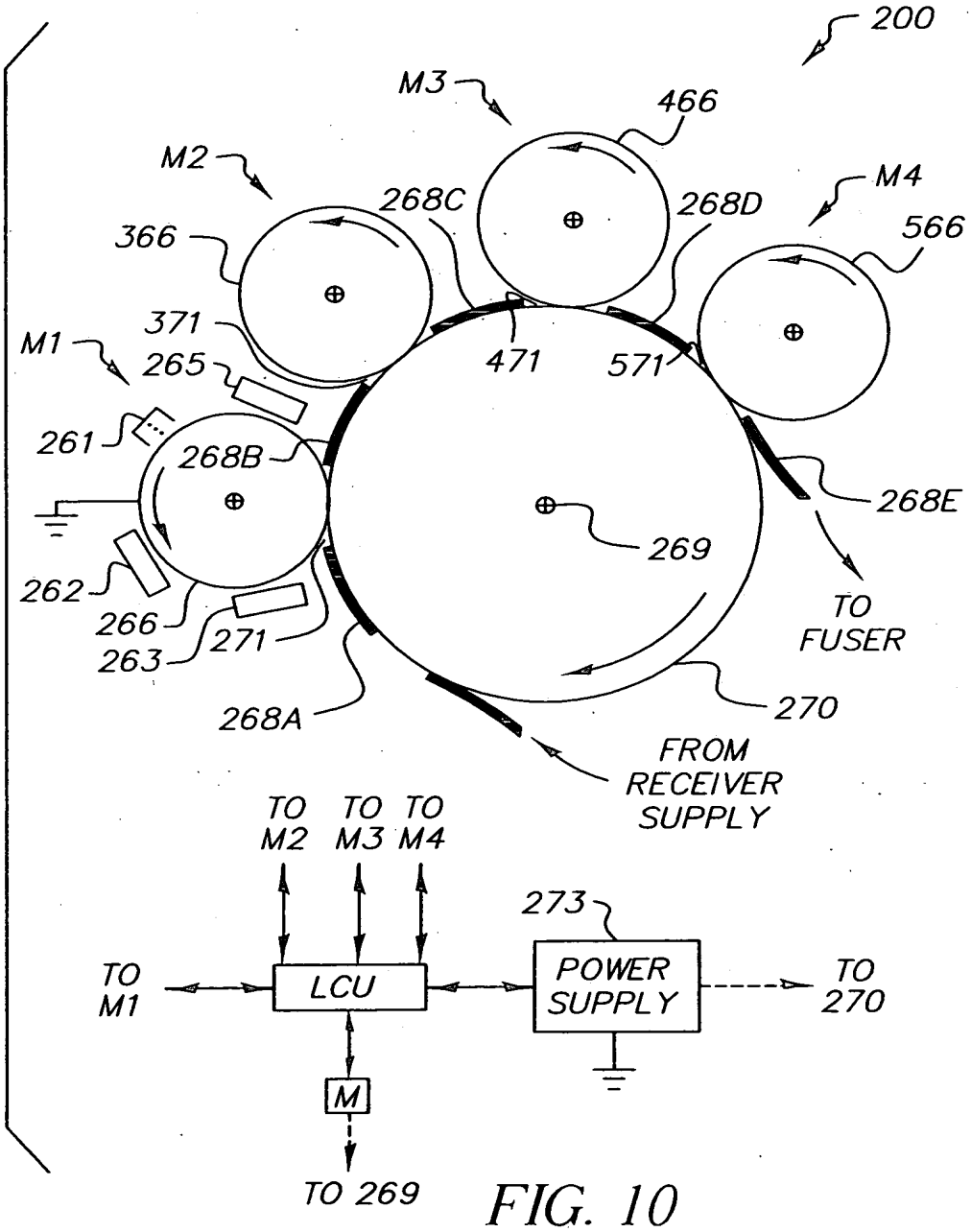
200
M3
466
M2
268C
268D
M4
566
366
371
M1
265
471
571
261
268B
268E
269
262
266
271
263
TO
FUSER
268A
270
FROM
RECEIVER
SUPPLY
TO
M2
TO
M3
TO
M4
273
TO
M1
LCU
POWER
SUPPLY
TO
270
M
TO 269

FIG. 10

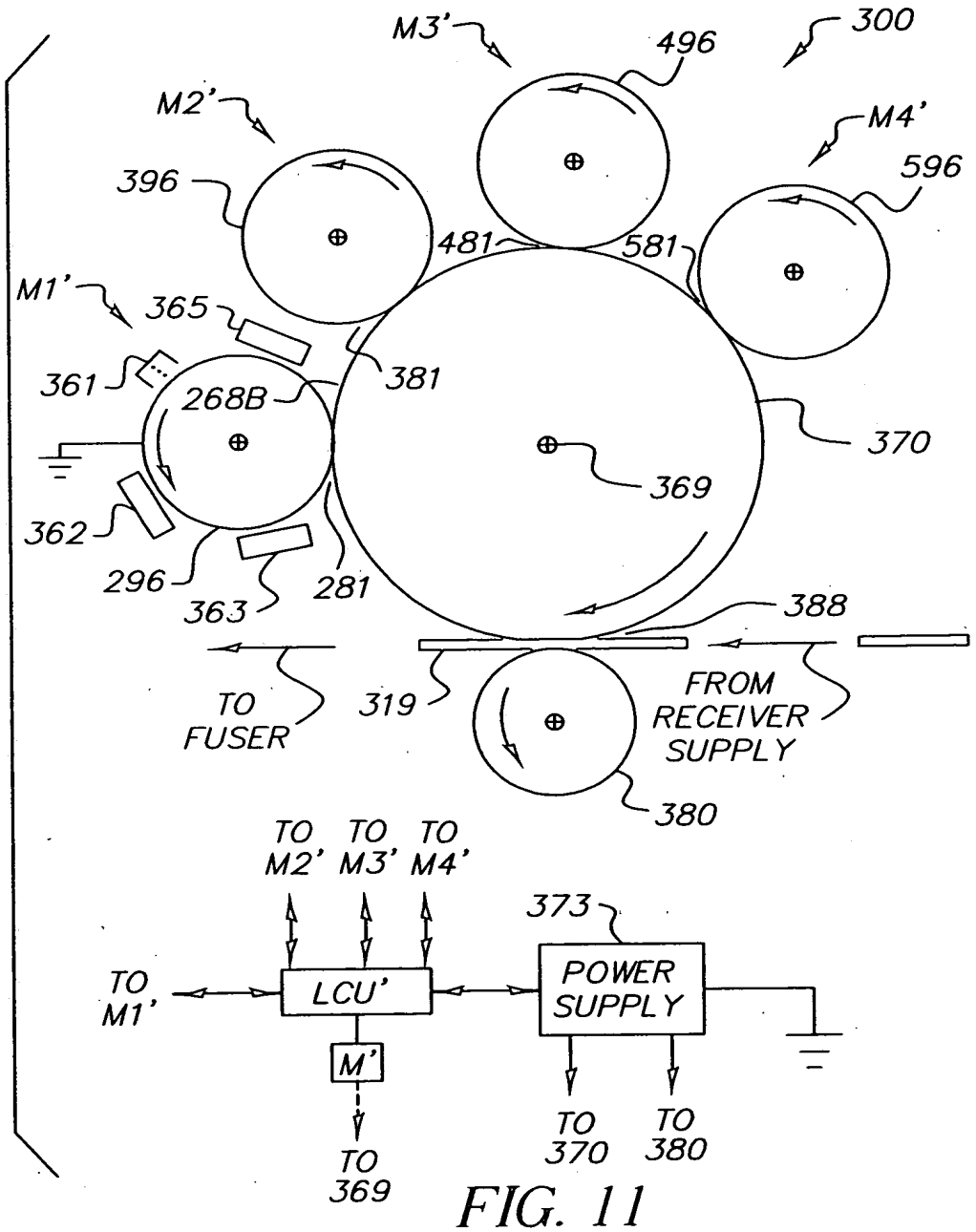
M3'
496
300
M2'
M4'
396
596
481
581
M1'
365
361
381
268B
370
369
362
296
363
281
388
TO
FUSER
319
FROM
RECEIVER
SUPPLY
380
TO
M2'
TO
M3'
TO
M4'
373
TO
M1'
LCU'
POWER
SUPPLY
M'
TO
370
TO
380
TO
369

FIG. 11